CLAIMS

1. Use of clusterin, an isoform, mutein, fused protein, functional derivative, active fraction, circularly permutated derivative, or salt thereof, or of an agonist of clusterin activity, for the manufacture of a medicament for the treatment and/or prevention of a peripheral neurological disease.

2. The use according to claim 1, wherein the peripheral neurological disease is selected from the group consisting of traumatic nerve injury of the peripheral nervous system (PNS), demyelinating diseases of the PNS, peripheral neuropathies and peripheral neurodegenerative diseases.

3. The use according to claim 1 or 2, wherein the peripheral neurological disease is caused by a congenital metabolic disorder.

4. The use according to any of the preceding claims, wherein the peripheral neurological disease is a peripheral neuropathy.

5. The use according to claim 4, wherein the peripheral neuropathy is diabetic neuropathy.

6. The use according to claim 4, wherein the peripheral neuropathy is chemotherapy-induced neuropathy.

7. The use according to any of the preceding claims, wherein the clusterin is selected from the group consisting of:

(a) A polypeptide comprising SEQ ID NO: 1;
(b) A polypeptide comprising amino acids 23 to 449 of SEQ ID NO: 1;
(c) A polypeptide comprising amino acids 35 to 449 of SEQ ID NO: 1;
(d) A polypeptide comprising amino acids 23 to 227 of SEQ ID NO: 1;
(e) A polypeptide comprising amino acids 35 to 227 of SEQ ID NO: 1;
(f) A polypeptide comprising amino acids 228 to 449 of SEQ ID NO: 1;
(g) A mutein of any of (a) to (f), wherein the amino acid sequence has at least 40 % or 50 % or 60 % or 70 % or 80 % or 90 % identity to at least one of the sequences in (a) to (f);

(h) A mutein of any of (a) to (f) which is encoded by a DNA sequence which hybridizes to the complement of the native DNA sequence encoding any of (a) to (f) under moderately stringent conditions or under highly stringent conditions;

(i) A mutein of any of (a) to (f) wherein any changes in the amino acid sequence are conservative amino acid substitutions to the amino acid sequences in (a) to (f);

(j) a salt or an isoform, fused protein, functional derivative, active fraction or circularly permutated derivative of any of (a) to (f).

8. The use according to claim 7, wherein the functional derivative comprises a PEG moiety.

9. The use according to claim 7 or 8, wherein the fused protein comprises an immunoglobulin (Ig) fusion.

10. The use according to any of the preceding claims, wherein the medicament further comprises heparin, for simultaneous, sequential, or separate use.

11. The use according to any of the preceding claims, wherein the medicament further comprises an interferon and/or osteopontin, for simultaneous, sequential, or separate use.

12. The use according to claim 11, wherein the interferon is interferon-β.

13. The use according to any of the preceding claims, wherein the clusterin is used in an amount of about 0.001 to 100 mg/kg of body weight, or about 1 to 10 mg/kg of body weight, or about 5 mg/kg of body weight.

14. Use of a nucleic acid molecule for manufacture of a medicament for the treatment and/or prevention of a peripheral neurological disease, wherein the nucleic acid molecule comprises a nucleic acid sequence encoding a polypeptide comprising an amino acid sequence selected from the group consisting of:

a) A polypeptide comprising SEQ ID NO: 1;

b) A polypeptide comprising amino acids 23 to 449 of SEQ ID NO: 1;

c) A polypeptide comprising amino acids 35 to 449 of SEQ ID NO: 1;
d) A polypeptide comprising amino acids 23 to 227 of SEQ ID NO: 1;
e) A polypeptide comprising amino acids 35 to 227 of S EQ ID NO: 1;
f) A polypeptide comprising amino acids 228 to 449 of SEQ ID NO: 1;
g) A mutein of any of (a) to (f), wherein the amino acid sequence has at least 40 % or 50 % or 60 % or 70 % or 80 % or 90 % identity to at least one of the sequences in (a) to (e);
h) A mutein of any of (a) to (f) which is encoded by a DNA sequence which hybridizes to the complement of the native DNA sequence encoding any of (a) to (f) under moderately stringent conditions or under highly stringent conditions;
l) A mutein of any of (a) to (f) wherein any changes in the amino acid sequence are conservative amino acid substitutions to the amino acid sequences in (a) to (f); or an isoform, fused protein, functional derivative, active fraction or circularly permutated derivative of any of (a) t o (f).

15. The use according to claim 14, wherein the nucleic acid molecule further comprises an expression vector sequence.

16. The use of a vector for inducing and/or enhancing the endogenous production of clusterin, or an agonist of clusterin activity, in a cell in the manufacture of a medicament for the treatment and/or prevention of a peripheral neurological disease.

17. The use according to any of claims 14 to 16 for gene therapy.

18. Use of a cell that has been genetically modified to produce clusterin, or an agonist of clusterin activity, in the manufacture of a medicament for the treatment and/or prevention of a peripheral neurological disease.

19. A pharmaceutical composition comprising clusterin, or an agonist of clusterin activity, and heparin, optionally toge ther with one or more pharmaceutically acceptable excipients, for treatment and/or prevention of a peripheral neurological disease.

20. A pharmaceutical composition comprising clusterin, or an agonist of clusterin activity, and an interferon, optionally together with one or more pharmaceutically acceptable excipients, for treatment and/or prevention of a peripheral neurological disease.

21. A pharmaceutical composition comprising clusterin, or an agonist of clusterin activity, and osteopontin, optionally together with one or more pharmaceutically acceptable excipients, for treatment and/or prevention of a peripheral neurological disease.

22. A method for treating a peripheral neurological disease comprising administering to a patient in need thereof an effective amount of clusterin, or of an agonist of clusterin activity, optionally together with a pharmaceutically acceptable carrier.

23. A method for treating a peripheral neurological disease comprising administering to a patient in need thereof an effective amount of clusterin, or of an agonist of clusterin activity, and heparin, optionally together with a pharmaceutically acceptable carrier.

24. A method for treating a peripheral neurological disease comprising administering to a patient in need thereof an effective amount of clusterin, or of an agonist of clusterin activity, and an interferon, optionally together with a pharmaceutically acceptable carrier.

25. A method for treating a peripheral neurological disease comprising administering to a patient in need thereof an effective amount of clusterin, or of an agonist of clusterin activity, and osteopontin, optionally together with a pharmaceutically acceptable carrier.